

Title (en)
SN ALLOY-PLATED STEEL SHEET

Title (de)
MIT SN-LEGIERUNG PLATTIERTES STAHLBLECH

Title (fr)
TÔLE D'ACIER PLAQUÉE PAR UN ALLIAGE DE SN

Publication
EP 3467155 A4 20191030 (EN)

Application
EP 17802852 A 20170524

Priority
• JP 2016103381 A 20160524
• JP 2017019436 W 20170524

Abstract (en)
[origin: EP3467155A1] The Sn-based alloy plated steel sheet of this disclosure includes: a steel sheet; a composite plating layer formed on at least one side of the steel sheet and including an Fe-Ni-Sn alloy layer and an island-shaped Sn layer located on the Fe-Ni-Sn alloy layer; and a coating layer formed on the surface of the composite plating layer and containing zirconium oxide and tin oxide, and the composite plating layer contains a predetermined amount of Ni and a predetermined amount of Sn, a content of the zirconium oxide in the coating layer is from 0.2 mg/m² to 50 mg/m² in terms of metal Zr amount, and a peak position of binding energy of Sn3d 5/2 according to X-ray photoelectron spectroscopy of the tin oxide in the coating layer is 1.6 eV or higher than a peak position of binding energy of the metal Sn.

IPC 8 full level
C25D 11/34 (2006.01); **C25D 5/12** (2006.01); **C25D 5/26** (2006.01); **C25D 5/48** (2006.01); **C25D 5/50** (2006.01); **C25D 7/06** (2006.01); **C25D 9/06** (2006.01); **C25D 9/08** (2006.01); **C25D 3/12** (2006.01); **C25D 3/32** (2006.01)

CPC (source: EP KR US)
B32B 15/013 (2013.01 - US); **C25D 3/60** (2013.01 - US); **C25D 5/10** (2013.01 - KR); **C25D 5/12** (2013.01 - EP US); **C25D 5/48** (2013.01 - EP KR US); **C25D 5/50** (2013.01 - EP US); **C25D 7/0614** (2013.01 - EP KR US); **C25D 9/06** (2013.01 - EP KR US); **C25D 9/08** (2013.01 - EP KR US); **C25D 11/34** (2013.01 - EP KR US); **C25D 3/12** (2013.01 - EP KR US); **C25D 3/32** (2013.01 - EP KR US); **C25D 5/12** (2013.01 - KR); **C25D 5/50** (2013.01 - KR); **Y10T 428/12722** (2015.01 - US)

Citation (search report)
• [A] WO 2015001598 A1 20150108 - JFE STEEL CORP [JP]
• [A] JP 4920627 B2 20120418
• See references of WO 2017204266A1

Cited by
EP3611292A4

Designated contracting state (EPC)
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DOCDB simple family (publication)
EP 3467155 A1 20190410; **EP 3467155 A4 20191030**; CN 109154098 A 20190104; CN 109154098 B 20210309; JP 6806152 B2 20210106; JP WO2017204266 A1 20190314; KR 102164120 B1 20201012; KR 20180132120 A 20181211; TW 201812111 A 20180401; TW I633210 B 20180821; US 10865491 B2 20201215; US 2019292673 A1 20190926; WO 2017204266 A1 20171130

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EP 17802852 A 20170524; CN 201780030385 A 20170524; JP 2017019436 W 20170524; JP 2018519587 A 20170524; KR 20187032075 A 20170524; TW 106117265 A 20170524; US 201716302903 A 20170524